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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHOUDHURY, AZIZUL Q

ART UNIT	PAPER NUMBER
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2145

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,444

Applicant(s)

GRAHAM TAYLOR

Examiner

Azizul Choudhury

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 18-20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 18-20 and 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

PD

Detailed Action

This office action is in response to the correspondence received on April 5, 2005.

1. Claims 1-10, 18-20 and 22-26 have been examined.
2. Claims 1-10, 18-20 and 22-26 have been rejected.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-16, 18, 19, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sun's "Jini Specifications Archive - 0.0" (see attached Notice of References Cited).

4. With regards to Claim 1, the Jini Specifications disclose: A method of generating an adaptive software interface for at least two networked entities, the method comprising: generating structured meta-data providing at least one semantic information element describing a characteristic of each said entity (see Section LU.1.2 "Attributes" lines 1-7); collating the semantic information elements of each said entity where possible with corresponding semantic information elements of said at least one other entity (see Section AR.2.1.2 "Lookup Service" lines 1-4); and analyzing said collated semantic information elements to establish the extent to which the interface capabilities of said at

least two networked entities are compatible and generating in accordance with said established compatibility the adaptive software interface for the two entities (see Section AR.2.1.2 "Lookup Service" lines 1-10).

5. With respect to Claim 2, the Jini Specifications disclose the limitations in Claim 1 as noted above, as well as describing a protocol where entities ('services') exchange interfaces via a so-called Lookup Service, thus disclosing: wherein the step of collating occurs dynamically during a preliminary exchange between the two entities prior to an interface being established between the two entities (see Section AR.2.1.2 "Lookup Service" lines 1-10 and Section AR 2.3.1 "Discovery and Lookup Protocols" lines 1-3).

6. With regards to Claim 3, the Jini Specifications disclose the limitations in Claim 1 as noted above, as well as: wherein said structured meta-data includes associated meta-data for at least one said semantic information element (see Section LU.1.2 "Attributes" lines 1-7).

7. With regards to Claim 4, the Jini Specifications disclose the limitations in Claim 1 as noted above, as well as describing a system that utilizes Java Virtual Machines of differing capabilities, thus it discloses: wherein the semantic information element describing the characteristics of said adaptive interface is provided in said meta-data in a form independent of the version of software used to generate said metadata (Section DA.2.2 "Devices Using Specialized Virtual Machines" lines 1-2).

8. With regards to Claim 5, the Jini Specifications disclose the limitations in Claim 1 as noted above, as well as describing semantic information compiled into classes by a Java compiler, thus disclosing: wherein said semantic information element is generated by a compiler receiving input data from an interface description and a code template (see Section AR. 1.2 "Environmental Assumptions" lines 12-18).

9. With regards to Claim 6, the Jini Specifications disclose the limitations in Claim 1 as noted above, as well as: wherein said interface description includes a model of the data to be communicated across the interface and a code template (see Section AR.2.1.2 "Lookup Service" lines 3-11 and Section AR.2.3.1 "Discovery and Lookup Protocols" lines 4-5).

10. With regards to Claim 7, the Jini Specifications disclose the limitations in Claim 1 as noted above, as well as describing a protocol that initially registers entity (i.e. 'service') descriptions and interfaces, thus disclosing: wherein said semantic information element provided by said meta-data has a form which can be mapped to an appropriate transport layer and exchanged between said networked entities prior to a higher level interface being established between said networked entities (see Section DJ.4.1 "Properties of the Underlying Transport" lines 1-5; Section AR.2.1.2 "Lookup Service" line 1; Section AR.2.3.1 "Discovery and Lookup Protocols" lines 9-11).

11. With respect to Claim 8, the Jini Specifications disclose: generating meta-data providing a structure containing at least one semantic information element describing a characteristic of the first entity (see Section LU.1.2 "Attributes" line 1-7); generating meta-data providing a structure containing at least one semantic information element describing a characteristic of the at least one other entity (see Section LU.1.2 "Attributes" line 1-7); collating the semantic information elements of the first entity with the semantic information elements of the at least one other entity (see Section AR.2.1.2 "Lookup Service" lines 1-16); analyzing each pair of collated semantic information elements to determine at least one behavioral characteristic of the first entity in the relationship (see Section AR.2.1.2 "Lookup Service" lines 1-4).

12. With regards to Claim 9, the Jini Specifications disclose the limitations of Claim 8 above, as well as: Wherein the meta-data structure is provided in a form suitable for indicating at least one semantic element taken from the group including: a description, a range, a default value (see Section LU.1.1 "The Lookup Service Model" lines 1-10 and LU.1.2 "Attributes" lines 1-4).

13. With respect to Claim 10, the Jini Specifications disclose the limitations of Claim 8 as noted above, as well as: wherein in the step of generating meta-data for the first entity, the at least one characteristic is a characteristic of an interface of the entity, and wherein in the step of generating meta-data for the at least one other entity, the at least

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one characteristic is a characteristic of an interface of the at least one other entity (AR.2.1.2 "Lookup Service" lines 1-10).

14. With respect to Claim 18, the Jini Specifications disclose: generating at least one meta-data structure providing at least one semantic information element for each entity, wherein each said semantic information element describes a characteristic of an interface capability of one of said entities (see Section LU.1.1 "The Lookup Service Model" lines 1-10 and Section LU.1.2 "Attributes" lines 1-7); collating said meta-data structures such that each semantic information element corresponding to the initiator's interface capability is collated with a corresponding semantic information element corresponding the responder's interface capability (see Section AR.2.1.2 "Lookup Service" lines 1-4); analyzing the collated semantic information elements to determine the extent to which the initiator and the responder can generate a compatible interface; establishing in accordance with said analysis an interface between said initiator and said responder (see Section LU.1.1 "The Lookup Service Model" lines 1-16).

15. With regards to Claim 19, the Jini Specifications disclose: generating structured meta-data providing at least one semantic information element describing a characteristic of each said entity (see Section LU.1.1 "The Lookup Service Model" lines 1 -10 and Section LU.1.2 "Attributes" lines 1-10); collating the semantic information elements of each said entity with those stored semantic information elements of said at least one other entity (see Section AR.2.1.2 "Lookup Service" liners 1-10); and

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analyzing said collated semantic information elements to establish the extent to which the interface capabilities of said at least two networked entities are compatible and generating in accordance with said established compatibility the adaptive software interface for the two entities (see Section LU.1.1 "The Lookup Service Model" lines 1-16).

16. With regards to Claim 20, the Jini Specifications disclose: generating structured meta-data providing at least one semantic information element describing a characteristic of each said entity (see Section LU.1.1 "The Lookup Service Model" lines 1-10 and Section LU.1.2 "Attributes" lines 1-9); collating the semantic information elements of each said entity with those semantic information elements of said at least one other entity (see Section AR.2.1.2 "The Lookup Service" lines 1-10); and analyzing said collated semantic information elements to establish the extent to which the interface capabilities of said at least two networked entities are compatible and generating accordance with said established compatibility the adaptive software interface for the two entities (see Section LU.1.1 "The Lookup Service Model" lines 1-16).

17. With respect to Claim 22, the Jini Specifications disclose: generating structured meta-data providing at least one semantic information element describing a characteristic of each said entity (see Section LU.1.1 "The Lookup Service Model" lines 1-10 and Section LU.1.2 "Attributes" lines 1-10); collating the semantic information

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elements of each said entity with those semantic information element, of said at least one other entity (see Section AR.2.1.2 "Lookup Service" lines 1-4); and analyzing said collated semantic information elements to establish the extent to which the interface capabilities of said at least two networked entities are compatible and generating in accordance with said established compatibility the adaptive software interface for the two entities (see Section LU.1.1 "The Lookup Service Model" lines 1-16).

18. With regards to Claim 23, the Jini Specifications disclose: A software application capable of providing a semantic description of another application performing a computational process in a network, the semantic description having a predetermined structure which is invariant regarding the version of compiler used to generate said semantic description from said software application and said other application, said semantic description providing discernable features of at least one characteristic of said other application (see Section LU.1.1 "The Lookup Service Model" lines 1-10 and Section LU.1.2 "Attributes" lines 1-9).

19. With respect to Claim 24, the Jini Specifications disclose: a communications network, a data network, a computer network (see Section DJ.4.1 "Properties of the Underlying Transport" lines 1-3 and Section AR.1.2 "Environmental Assumptions" lines 1-5).

20. With regards to Claim 25, the Jini Specifications disclose: A software application as claimed in claim 23, wherein said at least one characteristic relates to a characteristic of an ability of said other application to interface with at least one other application performing a computational process over said network (see Section LU.1.1 "The Lookup Service Model" lines 1-10 and Section LU.1.2 "Attributes" lines 1-9).

21. With respect to Claim 26, the Jini Specifications disclose: generating structured meta-data providing at least one semantic information element describing a characteristic of each said entity (see Section LU.1.1 "The Lookup Service Model" lines 1-10 and Section LU.1.2 "Attributes" lines 1-10); collating the semantic information elements of each said entity where possible with corresponding semantic information elements of said at least one other entity (see Section AR.2.1.2 "Lookup Service" lines 1-4); and analyzing said collated semantic information elements to establish the extent to which the interface capabilities of said at least two networked entities are compatible and generating in accordance with said established compatibility the adaptive software interface for the two entities (see Section LU.1.1 "The Lookup Service Model" lines 1-16).

Response to Remarks

The amendment received on April 5, 2005 has been carefully examined but it is not deemed fully persuasive. No changes have been made to the claims themselves but instead remarks are submitted expressing concerns over the prior art applied in the

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non-final office action. The applicant's representative makes attempts to define their claimed invention and attempts to define the prior art design. However the examiner believes that the applicant's representative is misinterpreting the prior art. Within the remarks, the applicant's representative states that the Jini Lookup is like a "business service telephone directory but for software services." The examiner fails to see this example as being accurate and believes the misunderstanding stems from the use of the term "advertise" within the phrase in the prior art: "for services to advertise their availability and for would-be clients to obtain references to those services based on the attributes they provide." The examiner would like to explain that the term "advertise" in a network setting is more synonymous with the term "broadcast." In network designs, when a device "advertises," it is making it's presence known in a network to other networked devices within it's proximity by broadcasting a signal (data packets) through the network. That signal contains information relevant to the broadcasting device such as protocol information, device names, addresses and more. This broadcasted (advertised) data is then used by other network devices to connect to the broadcasting device, if it wants to.

After having evaluated the prior arts and the claim language, the examiner is convinced that the prior art does in fact demonstrate the lack of novelty within the claimed invention. It is important to not simply accept the literal translation of a prior art but, to attain an understanding of the spirit of the design disclosed within a prior art. It is then that one is able to discern how each and every feature of the claimed invention is present within the prior art design.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Azizul Choudhury whose telephone number is (571) 272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on (571) 272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AC


VALENCIA MARTIN-WALLACE
SUPERVISORY PATENT EXAMINER